SWBAT

answer AP style questions about Newton's Laws

Sep 4-7:31 AM

Welcome!!!

SECA CP Physics
Wednesday 30 March 2016

H. Leslie Grebe
Room C-244

Centering (animals)

- Show me SchoolView if you want phone in class...

HOMEWORK: More Free Body Diagrams

Opening Activity: Quick Write

Look back through your notebook: What things should be on our **test?**

http://www.boredpanda.com/cute-baby-animals/

16-20

Sep 7-7:04 AM

What we should have solid:

Memorize our ~~5~~ 8 vocab cards, units, vector or not, definition, formula

Be able to answer distance vs displacement questions

Be able to make measurements of real-life motion. Know what is likely to make timing things difficult and how to get more reliable timing results

Be able to convert between miles and meters, between hours, minutes, and seconds

Be able to calculate speed = dist/time and velocity = disp/time

Know what all of the symbols in the UAM equations stand for and mean

Be able to turn a UAM word problem into a list of knowns and unknowns

Be able to pick the equation with those 4 things in it

Be able to put the knowns into that equation

(Be able to solve for the unknown)

→ PROJECTILES: V_x IS CONSTANT; V_y CHANGES; $a_y = -9.8 m/s^2$ PG 42

PG 43 PG 53 TIME, Δt, 1ST LAW, CONNECTS X & y

PG 49 69 VECTORS INTO X & y, ADD VECTORS

SOH-CAH-TOA

PG 59 DIFFERENCE BETWEEN MASS & WEIGHT

PG 61 NET FORCE

PG 63 FREE BODY DIAGRAMS

$F = m \cdot a$

PG 70 $F_F = \mu \cdot N$

QW every day to review - gather responses to front board.

Dec 4-9:15 AM

InterActive Notebook - Table of Contents

Unit_____ Chapters_____ Date_____

Left-Side Items	Page	Right-Side Items	Page
REFLECTION ON NOTES	2	TED ED ADAM SAVAGE	3
HOW FAR FROM BRIDGE	4	"FORT STUEBEN"	5
REFLECTION ON NOTES	6	HMWK: BASE UNITS	7
PR: DISTANCE & DISPLACEMENT	8	HMWK: FP DISPLACEMENT	9
DIAGRAM & STEPS	10	TIMING & ERROR	11
SUMMARY OF TIMING	12	HOW TO BUILD A TABLE	13
PR: (CONVERTING SOLNS.)	14	HMWK: FP CONVERSIONS	15
PR: VELOCITY & SPEED	16	HMWK: FP SPEED & VELOCITY	17
SPEED WORD PROBLEMS	18	ALGEBRA FOR PHYSICS	19
LAB JOURNAL 10/7	20	LAB JOURNAL 10/8	21
		HMWK: FP GRAPHS POSITION	23
LAB JOURNAL 10/12	24	EXPERIMENT RUBRIC	25
26 USE FOR PROJECT			27
OBSERVATIONS OF CORR.	28	FP: INTRO TO ACC.	29
REVIEW FOR TEST	30	BALL ON RAMP	31
VECTORS, DIRECTION	32	FP: BASIC ACC EXAMPLE	33
PRACTICE UAM	34	FP: INTRO TO UAM	35
FALLING OBJECTS PACKET	36	FP: INTRO TO FREEFALL	37
MY FREE FALL WORD PROBLEM	38	3-ACT FALLING GLOWSTICK	39
Toy popper experiment	40	Free fall class solutions	41
Launched vs. Dropped	42	FP: INTRO TO PROJECTILE MOTION	43
PROJECTILE SIMULATOR	44	FP: PROJ. MOTION PROBLEM	45
PROJ'L PRACTICE PROB.	46	PROJECTILES PRACTICE	47
OUR VECTOR PRACTICE	48	FP - INTRO TO VECTOR COMPONENTS	49
VECTOR PACKET	50	NOTES ON ADDING VECTORS	51
MEASURE LAUNCHER	52	NOTES ON FINDING θ	53
OBSERVATIONS OF OBJECTS	54	RULES OF PHYSICS NOTES	55
NEWTON'S 1ST LAW	58	CONFUSING QUANTITIES	59
WKSHT: 2-1 PHET FORCES IN 1d	60	NET FORCE	61
PACKET: F.B.D.	62	FREE-BODY DIAGRAMS	63
DATA/MEASURING CART	64	FINDING FRICTION ON CART	65
MORE PROJECT?	66	MYTHBUSTERS	67
VECTOR ADDITION BY COMPONENTS	68	VECTOR EXAMPLE	69
PHET RAMP-SLIDING	70	NORMAL VS. GRAVITY	71
2ND LAW WORKSHEET	72	FP: 2ND LAW NOTES	73
3RD LAW WORKSHEET	74	NEWTON'S 3RD LAW	75

Sep 5-9:09 AM

NOTE CARD VOCAB

- FORCE
- MASS
  kg
- SPEED
- ACCELERATION
- INERTIA
- WEIGHT
  N

Mar 30-9:52 AM

BACK OF NOTEBOOK:
"PHYSICS CODE WORDS"

MAGNITUDE: SIZE, HOW BIG
VECTORS HAVE MAG. & DIRECTION

HORIZONTAL: SIDEWAYS, LEFT/RIGHT, X-DIRECTION

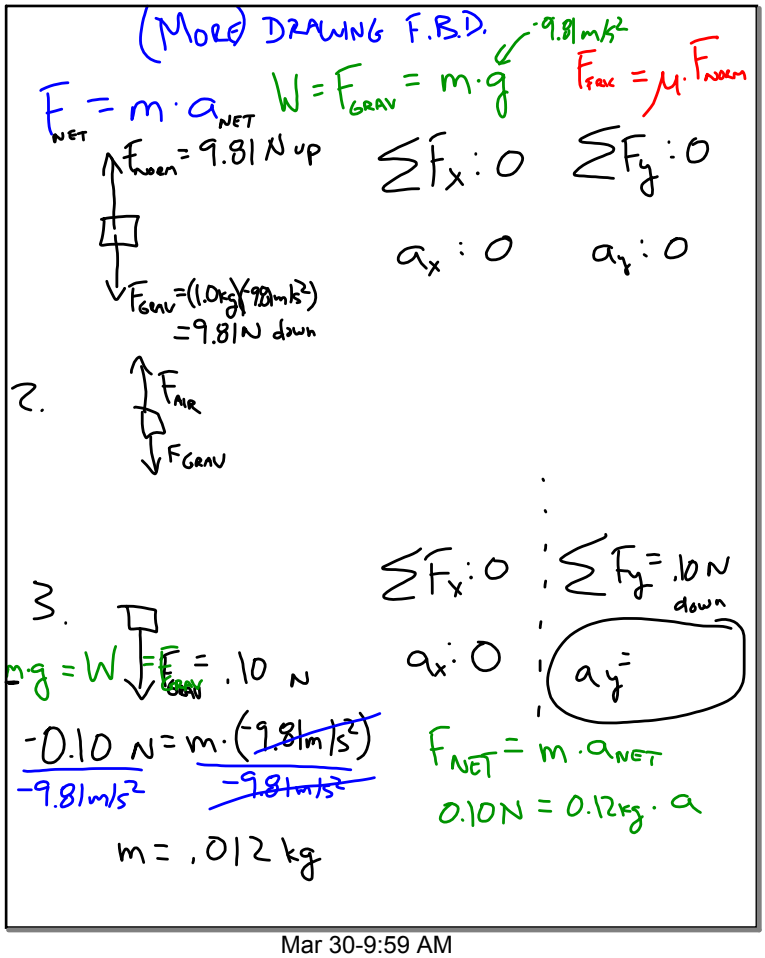
VERTICAL: UP/DOWN, Y-DIRECTION
"VERY TALL"

AT REST: VELOCITY = 0

CONSTANT SPEED/VELOCITY: BALANCED FORCES,
NET FORCE = 0
ACCELERATION = 0

Σ: "SIGMA", SUM, TOTAL (+ & −) "NET"

Mar 30-9:46 AM


(MORE) DRAWING F.B.D.
$F_{NET} = m \cdot a_{NET}$
$W = F_{GRAV} = m \cdot g$
$9.81 m/s^2$
$F_{frict} = \mu \cdot F_{Norm}$
$F_{Norm} = 9.81 N$ up
$F_{GRAV} = (1.0kg)(9.81 m/s^2)$
$= 9.81 N$ down
$\Sigma F_x : 0$
$\Sigma F_y : 0$
$a_x : 0$
$a_y : 0$
2.
F_{AIR}
F_{GRAV}
3.
$m \cdot g = W = F_{GRAV} = .10 N$
$-0.10 N = m \cdot (-9.81 m/s^2)$
$-9.81 m/s^2$
$-9.81 m/s^2$
$m = .012 kg$
$\Sigma F_x : 0$
$\Sigma F_y = .10 N$ down
$a_x : 0$
$a_y =$
$F_{NET} = m \cdot a_{NET}$
$0.10N = 0.12kg \cdot a$

Mar 30-9:59 AM